PreCalculus
Angles in Standard Position WS

Name _TFuslen_

Draw an angle with the given measure in standard position.

1) $-\dfrac{5\pi}{4}$

QII

2) 235°

QIII

3) 576°

QIII

4) $\dfrac{13\pi}{6}$

QI

5) −452°

QIII

6) $\dfrac{43\pi}{12}$

QIV

7) −1050°

QI

8) −9π
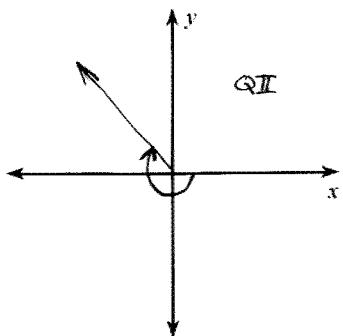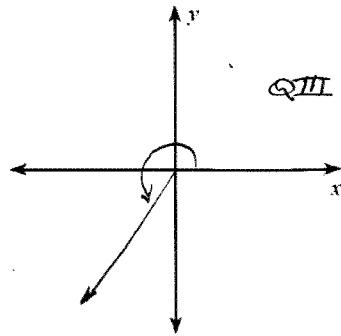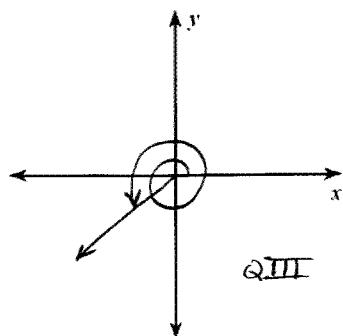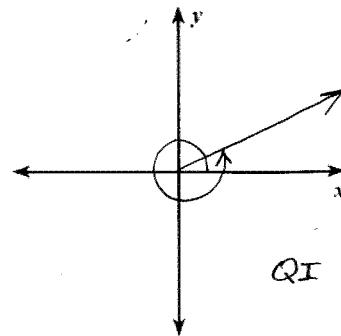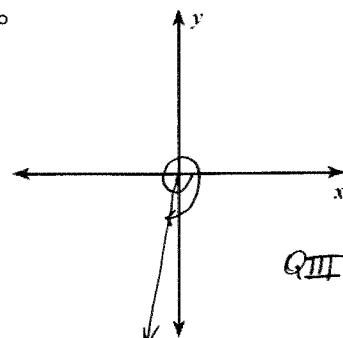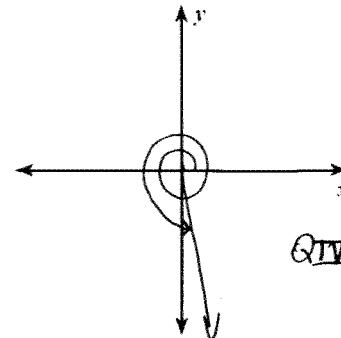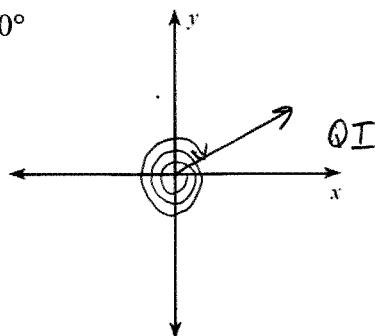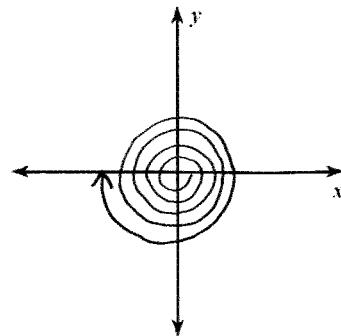
Find the measure of each angle, using the same degree measure as shown in each picture.

9)

$57°$

$\begin{array}{r} 360 \\ -57 \end{array}$

$\boxed{303°}$

10)

$\dfrac{2\pi}{5}$

$\dfrac{3\pi}{2} - \dfrac{2\pi}{5}$

$\boxed{-\dfrac{11\pi}{10}}$

$\dfrac{15\pi - 4\pi}{10}$

11)

$23°$ $67°$

$\begin{array}{r} 360 \\ +67 \\ \hline 427° \end{array}$

$\boxed{427-}$

12)

$\dfrac{3\pi}{7}$

$\boxed{\dfrac{10\pi}{7}}$

$\pi + \dfrac{3\pi}{7}$

$\dfrac{7\pi}{7} + \dfrac{3\pi}{7}$

13)

$27°$

$63°$

$\begin{array}{r} 720° \\ -27° \end{array}$

$\boxed{693°}$

14)

$\dfrac{\pi}{10}$

$-\dfrac{14\pi}{10}$

$= \boxed{-\dfrac{7\pi}{5}}$

$\dfrac{3\pi}{2} - \dfrac{\pi}{10}$

$\dfrac{15\pi - \pi}{10}$
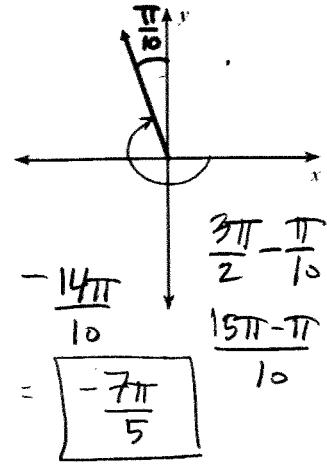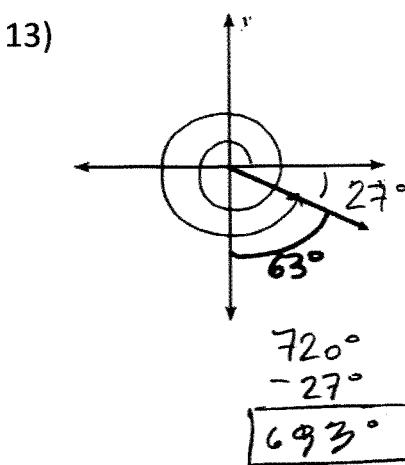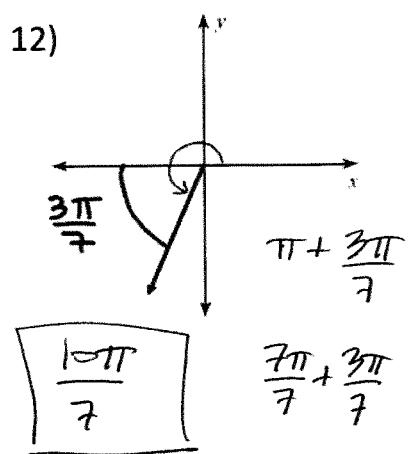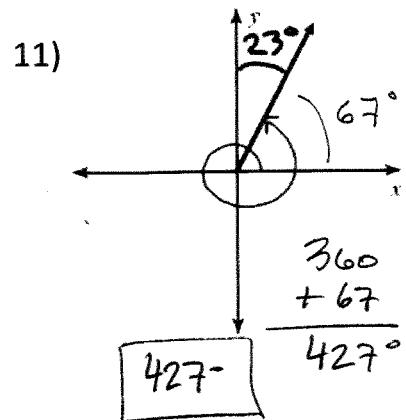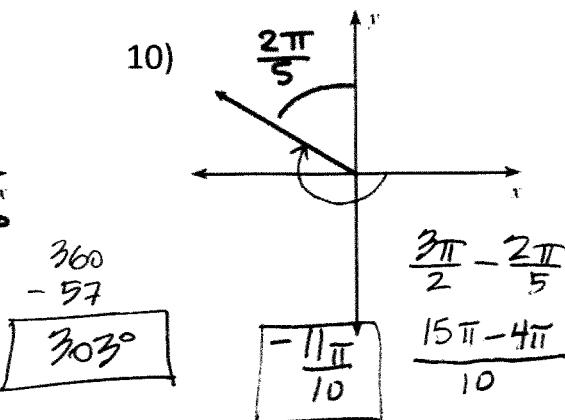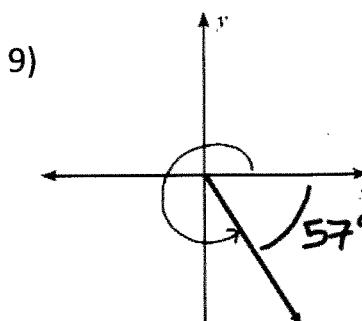
State the quadrant in which the terminal side of each angle lies.

15) $\dfrac{5\pi}{3}$ Q IV

16) $-\dfrac{11\pi}{5}$ Q IV

17) 235π negative x-axis

18) $2500°$

$340°$

Q IV

19) $-\dfrac{17\pi}{6}$

Q III

20) $\dfrac{13\pi}{18}$

Q II